

# Village Common Forests in Chittagong Hill Tracts, Bangladesh: Balance between Conservation and Exploitation

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## **Executive Summary**

Indigenous communities in the Chittagong Hill Tracts (CHTs) of Bangladesh are managing forests around their homesteads in a sustainable way despite exclusion of customary rights on government managed reserved forests,. Bangladesh, as one of the forest poor countries in the world, is continuously struggling to conserve its forest resources. However, community managed Village Common Forest (VCF) represents an influential model of forest management, serving multi-functions to the dependent indigenous communities. The current study was conducted in the 12 VCF areas of Rangamati and Bandarban districts in CHTs employing semi structured interviews to the members of Forest User Group (FUG). The study found that VCFs are enriched with more biodiversity than that of Government forests. Moreover, indigenous management of resources in VCFs were sustaining a balance between exploitation and conservation. Finally, the study suggests that for halting degradation of forest resources in Bangladesh, VCF could be used widely as an effective tool.

**Keywords:** Chittagong Hill Tracts; conservation; forest degradation; indigenous management; Village Common Forest

## Introduction

Bangladesh is a forest poor country. The forest cover of the country has shrunk to six percent in recent years (Gain, 2002). In spite of limited forest resources, Chittagong Hill Tracts (CHT) is still considered as one of the forest richest areas of Bangladesh. The area is different from other areas of Bangladesh due to its unique geographic and social structures, which is characterized by hilly topography and inhabited by different indigenous communities. The indigenous culture, lifestyle and livelihood are mostly related to forest and forest resources. Unfortunately, over the past several decades, unsustainable use of these resources has led to the loss of biodiversity, degradation of the overall environment and ecosystems as a whole. As a result, forest resource oriented indigenous communities faced with several crises for their subsistence requirements. Standing on such degraded condition, government has initiated many development programs for forest dependant indigenous communities in CHT. However, it was not so much effective to meet livelihood demands of indigenous people. Having no other alternatives for livelihood, indigenous people have introduced a new form community managed forest management system, which is commonly known as Village Common Forest (VCF). In the first place, VCF meets the demand of bamboo, timber, medicinal plants, fuel wood and other minor forest product of many indigenous people (Chakma, 2005). Moreover, it provides economic surplus to the communities. Therefore, the protection and preservation of VCF become crucial for livelihood, environmental, medicinal, cultural and religious needs of indigenous communities.

Within the last two decades, deforestation in Bangladesh, especially in the CHT, is acute. Nevertheless, VCF is fulfilling the environmental, medicinal, cultural and religious needs of the indigenous communities in a sustainable way. VCFs are repositories of food, biodiversity and medicinal herbs and plants. Moreover, the management of VCF set an example of sustainable forest management. Considering the importance of VCF in the life and economy of the indigenous communities in CHT, the current study has been carried out in 12 VCFs areas in Rangamati and Bandarban districts of CHT (Figure 1). The Chittagong Hill Tracts is located in southeast side of Bangladesh between latitudes  $21.25^{\circ}$  and  $23.45^{\circ}$  north, and between longitudes  $91.45^{\circ}$  and  $92.50^{\circ}$  east. With an area of 5,089 square miles, the region covers about one-tenth of Bangladesh's land area, and is surrounded by India to the north and east, Myanmar to the southeast, Chittagong district to the west and Cox's Bazar to the southwest. Two-thirds of the area is characterized by steep slopes; the remaining area has an undulating topography (Rasul, 2007).

Employing semi-structured questionnaires to the Forest User Groups (FUG) in VCF areas the study seeks to explore the role of VCF in conservation of forest resources while fulfilling the demands of forest products of indigenous communities.



## Historical Background of Village Common Forest

Village Common Forest (VCF) is a natural forest other than the government forest around the households of the ethnic communities and managed to fulfil their daily demands. The birth of community-managed VCF in the CHT is a direct result of resource constraints caused by deforestation and the prevention of entry into and use of the resources of the newly acquired reserved forests (which were promptly declared as off limits to local people). These constraints led local communities to devise newer and more sustainable modes of the natural resources management. One such innovation, drawing upon indigenous traditional methods of forest fallow and Jhum cultivation, gave birth to the VCF during the first quarter of the 20th century.

Between 1871 and 1885, three-fourths of CHT's land has been declared as government forestland by the British colonial government and the remaining area, except some privately owned land those are obtained through leasehold or freehold, declared as 'khas land' (government owned fallow land, where nobody has property rights) (Rasul, 2007). One fourth of the government forestlands (1,345 sq km) were declared as Reserved Forests (RFs), where any rights of indigenous people including collection of fuel wood, fodder and Jhuming<sup>1</sup> were totally denied. Of late, the government declared the rest of the government forests as Unclassed State Forest (USF), where indigenous peoples' customary rights are allowed (Ibid.). These forests are common forests and all the members of the adjacent community have equal rights over the resources under certain guidelines.

In 1900, according to CHTR (Chittagong Hill Tracts Regulation) manual Headman of each Mouza<sup>2</sup> has given power to manage the forest within a Mouza. It is reported that since 1939, traditionally the indigenous communities were managing the forests around their homesteads in CHT. With the face of continuous forest degradation government declared a circular to Headman of each Mouza to raise and conserve VCF in 1965. Currently, it is estimated that VCF covers 202 ha of land in CHT (Chakma, 2005).

## Village Common Forest as a Common Property Resource

The term common property in everyday usage has been historically applied to two different property regimes: resources that are open access and are not weighed down by any property rights, and resources that have multiple users. This term contrasted with private property, which sometimes referred to a resource held by an individual and in other times referred to property that is not state owned (Demsetz, 1967; Ostrom, 1990).

However, ambiguities arise from differentiating common property and open access resources as many researchers treated both as the same and argued for privatization to stop resource degradation (Vainio, 1998). Hardin (1968) in his famous article "The tragedy of commons" argues that to avoid tragedy,

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<sup>1</sup> Jhuming or shifting cultivation, popularly known as Sweden cultivation or cultivation of slash and burn, is the most prevalent form of cultivation in the hill areas of Bangladesh. Most tribal people are well acquainted with this type of farming. Jhuming is practiced on sloppy hills outside reserve forests. At present, about 20,000 hectares of land are being brought under jhum cultivation every year, decaying 100 to 250 metric tons of soil per hectare of land (Banglapedia 2004).

<sup>2</sup> Mouza is a type of administrative district, corresponding to a specific land area within which there may be one or more settlements (Wikipedia)

commons could either be privatized or kept as public property controlled by government. It is generally believed that open access works well only when there is little need to manage a resource at all; when demand is too low to make the effort worthwhile. In a common property arrangement, on the other hand, a particular group of individuals share rights to a resource. Thus, common property is not open access to all but access is limited to a specific group of users who hold their rights in common (McCay and Acheson, 1987; Berkes, 1989). Berkes (1989) defines common property resources as a class of resources for which exclusion of potential users is difficult and costly and joint use involves subtractability: each user reduces the availability of the resources to others. Village common forest is managed as common property resource by the villagers. Generally, the village community manages the VCFs under the leadership of Mouza Headmen. The management of these forests is based on traditional resource management pattern, where jhuming is not allowed. The community themselves decide through a meeting when and what to harvest from VCF for their domestic uses.

Many common forest areas provide a variety of resources to the dependant communities at free of cost such as firewood and small timber, animal fodder, green manure and various fruits and medicinal products. The common forest also protects village water resources such as springs, and irrigation canals. In periods of low employment, for example, the agricultural off-seasons, local people may collect forest products which they can sell and earn subsistence level income. Poor people who have only limited or no access to private or government forestlands depends on communal forests to obtain many essential household products. Therefore, due to deterioration of the common forest, the poor suffers earlier and more intensely than other affluent villagers because they seldom have adequate land or capital resources on which to make alternative choices.

### **Management of Village Common Forest**

Every VCF is run by a Forest User Group (FUG). The village headman is the head of the group and the villagers are the members of group by regulation. However, the system is more or less democratic and after every three years the executive committee is elected by the members of the user group. The study finds that the indigenous communities are guided by their traditional norms and select the same headman as the head of the group until he is dead or physically disable. The user community collectively set the rules of VCF management and punishes the rule breaker. Even though individual extraction is restricted in VCF but with permission from the executive committee, individual families may extract wood and other natural resources for their domestic uses. The villagers also sell some of the forest produce, usually bamboo and less occasionally timber to meet community needs for school and temple construction and for emergency medical expenses.

There are no written rules for VCF management. All the rules are traditionally followed. Moreover, the rules are not same in all the VCFs. They differ with different ethnic communities and also with local condition. However, some rules are common for all the VCFs. The study identifies ten rules that area common in all VCFs:

1. All fire works are restricted in the VCF area.
2. Without prior permission of the forest management committee (Executive committee) access is restricted to the VCF.
3. If any body cut bamboo without permission, he has to pay 50 taka penalty for each bamboo



4. Every year new plantation should be done in VCF by the members along with private forest.
5. Immature bamboo extraction is restricted.
6. The executive committee will approve the requirement of forest resources in general meeting before starting extraction
7. Commercial selling is forbidden unless the committee decides to spend the money collected from the sell of forest products in community development (developing prayer place, school, roads etc).
8. Committee can give permission to outside villagers to collect forest resources in case of emergency.
9. Harvesting of bamboo is generally done after 2 to 3 years.
10. Hunting is strictly forbidden in all the cases.

### Conservation status of Village Common Forests

The study finds that most of the VCFs in Rangamati are predominately consist of bamboo brakes, while most of the VCFs in Bandarban are more heterogeneous both in floral and faunal composition. Even though biodiversity is decreasing day by day but still VCFs are enriched with high biodiversity. The study reported total 173 floral and 60 faunal species in VCFs, which are more in number than government managed reserve forests in CHT (Table 1 & Table 2). Moreover, VCF protects natural springs and other aquifers, which are pure drinking water sources to many indigenous communities (Figure 2).

Table 1: Floral statistics of VCF area

Types of plants species	No. of plant species	Total
Woody plant	70	
Medicinal plant	20	173
Fodder plant	77	
Bamboo	06	

Table 2: Faunal statistics of VCF area.

Types of animal species	No. of animal species	Total
Wild animal	20	60
Bird species	40	

(Source: Ronju, 2005)

In spite of continuous degradation of forest resources VCFs are still found well stocked. VCF plays important role in conserving forest resources as well as fulfilling other demands of the forest dependant communities. The indigenous communities are managing VCFs around their homesteads for the following reasons:

- To maintain tree cover and protect the environment in the face of rapid deforestation.
- To maintain a diversity of plant and animals (including herbs and plants used in herbal medicine), which have significant potentiality in modern medical science.
- To sustain a supply of wood and bamboo required for house construction and fuel consumption.
- To reduce the pressure on government managed reserved forest for forest products.
- To preserve the drinking water sources as many VCFs contain headwaters of streams, natural springs and other aquifers.
- The VCFs are also related to the religions, cultural beliefs, rituals and ceremonies of many indigenous people.



1. Water well in VCF



2. Perennial water sources



Figure 2: Water resources in VCF

## **Livelihood Components of Village Common Forests**

The Village Common Forest is an example of sustainable management without help of mainstream managerial body. VCF villages are found rich of natural forest resources and people are inextricably linked with VCF for their day-to-day needs. As VCF villagers have no access and rights inside the government owned reserved forest, therefore, various forest products from VCF such as bamboo, wood, medicinal plants, natural dyes and fuel wood have played a significant role on their livelihood. Among the forest products, bamboo is estimated to be the highest forest product utilized by VCF-community reasonably for domestic purposes as well as a source of income. For sustained utilizations of the products, VCF dependent households form a FUG and establish certain informal rules and regulations which are strictly followed during extraction of forest products.

Moreover, the production rate of agricultural crop is satisfactory in VCF villages. From the study, it is revealed that rice, ginger, turmeric and different types of vegetables sales provide high economic surplus to the many households in VCF villages. Horticultural crops are now increasingly being grown to replace cereals or vegetables. In one hand, horticultural crops ensure food security; on the other hand, these generate income of VCF communities to a great extent. VCF has protected many seasonal and perennial water bodies which provide not only drinking water and fish protein, but also enhances agriculture production.

## **Sustainability Issues in Village Common Forest**

Besides ecological values of VCF, the economic values are getting importance day by day with increasing the prices of wood and bamboos. The ever increasing economic needs are sometimes considered as potential threat to the VCFs. Many VCFs already degraded due to over extraction and selling of the mother trees as the most of the VCF communities are poor and do not have alternative livelihood sources. Therefore, the long term sustainability of the VCFs will depend upon how well the local communities feel VCFs' usefulness in their every day lives. Many of the benefits generated from VCF remain unacknowledged. Now-a-days, sustainability of VCF is threatened by population pressure, scarcity of agricultural lands and overall lack of awareness about the benefits generated from VCFs. These threats will have to be met primarily by the villagers themselves, although external agencies can play as a helping hand. For long term sustainability, capacity and awareness building are the most important factors both for the VCF communities and policy makers in the region.

## **Conclusions**

The issue of deforestation and environmental degradation in CHTs has received substantial attention in recent years. One important concern is the efficiency of the land what is managed, particularly forestland that is communally owned. Despite the importance of forest management in terms of global externalities, emphasis is given to the magnitudes and, in some cases, the signs of the consequences of environmental conservation, population growth, and rural livelihood of forest dependent people. Therefore the study has been carried out to explore the mechanisms underlying these relationships and, in particular, the relative efficiency of alternative mechanisms of forest-resource management that create a balance condition between exploitation and conservation.

Village Common Forests are managed by indigenous communities, have set a standard for the protection of biodiversity, environment and natural resources in CHT. Forest resources of VCFs are used to develop educational, religious institutions and making shelter for poor people. In some areas

mature trees and bamboos are sold to create a fund to be used in disaster. These forests provide indigenous communities with pure drinking water in inaccessible hilly areas by keeping annual and perennial springs and small rivers into sustained flow. VCFs are rich in biodiversity and equipped with valuable medicinal plants, which help the disadvantaged indigenous communities to get rid of various diseases.

From the study, it can be concluded that management of VCF is increasingly becoming essential for the subsistence of people in the area. The management practices in VCFs are effective to sustain a balance between conservation and exploitation of forest resources. The formation of local institution and setting of forest management practices by indigenous communities restrict users from over-exploitation of forest resources, which can be used as an influential model for managing government forests.

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